## **AMENDMENT TO AND LISTING OF THE CLAIMS**

Please cancel claims 1-12 and amend claims 13-34, wherein strikethrough and double brackets indicate a deletion and underline indicates an addition, as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

## 1-12. (Cancelled)

- 13. (Currently Amended) A machine-readable <u>storage</u> medium that includes instructions for assembling a sub-pool from a pool of questions, wherein the sub-pool satisfies one or more constraints, in connection with creation of a standardized test comprising the sub-pool of questions, wherein such instructions, when executed by a computer, cause the computer to:
- A. form a candidate sub-pool by randomly selecting a plurality of questions from the pool;
  - B. test the candidate sub-pool against the constraints; and
  - C. if the constraints are satisfied, store the candidate sub-pool as the sub-pool.
- 14. (Currently Amended) The machine-readable <u>storage</u> medium of claim 13 wherein the computer is further caused to:

if the constraints are not satisfied, repeat steps A, B, and C.

15. (Currently Amended) A machine-readable <u>storage</u> medium that includes instructions for assembling a sub-pool from a pool of questions, wherein the sub-pool satisfies one or more constraints, in connection with creation of a standardized test comprising the sub-pool of questions, wherein such instructions, when executed by a computer, cause the computer to:

A. create a hierarchical representation of the sub-pool, wherein the hierarchical representation comprises a root node and at least one other node, wherein at least one of the other nodes comprises a terminal node, and wherein the root node is associated with one or more root constraints and each of the other nodes are associated with one or more additional constraints;

- B. form a candidate question set comprising randomly selecting a plurality of questions from the pool;
- C. test the candidate question set against the additional constraints associated with the terminal node; and
- D. if the additional constraints are satisfied, test at least the candidate question set against the root constraints.
- 16. (Currently Amended) A machine-readable <u>storage</u> medium that includes instructions for assembling a sub-pool from a pool of questions, wherein the sub-pool satisfies one or more constraints, in connection with creation of a standardized test comprising the sub-pool of questions, wherein such instructions, when executed by a computer, cause the computer to:

A. create a hierarchical representation of the sub-pool, wherein the hierarchical representation comprises a root node and at least two other nodes, wherein at least two of the other nodes each comprise a terminal node, and wherein the root node is associated with one or more root constraints and each of the other nodes are associated with one or more additional constraints;

- B. form a first candidate question set comprising randomly selecting a plurality of questions from the pool;
- C. test the first candidate question set against the additional constraints associated with a first of the terminal nodes;
- D. form a second candidate question set comprising randomly selecting a plurality of questions from the pool;
- E. test the second candidate question set against the additional constraints associated with a second of the terminal nodes;
- F. if the first set of additional constraints and the second set of additional constraints are satisfied, concatenate the first candidate question set and the second candidate question set to form a combined question set; and

- H. test at least the combined set against the root constraints.
- 17. (Currently Amended) The <del>computer</del> <u>machine</u>-readable <u>storage</u> medium of claim 16, wherein the computer is further caused to:
  - G. if the first set of additional constraints is not satisfied, repeat steps B, C, and F.
- 18. (Currently Amended) The <u>computer machine</u>-readable <u>storage</u> medium of claim 16, wherein the computer is further caused to:
  - G. if the second set of additional constraints is not satisfied, repeat steps D, E, and F.
- 19. (Currently Amended) A machine-readable <u>storage</u> medium that includes instructions for assembling a sub-pool from a pool of questions, wherein the sub-pool satisfies one or more constraints, in connection with creation of a standardized test comprising the sub-pool of questions, wherein such instructions, when executed by a computer, cause the computer to:
- A. form a sequence of ranges wherein each range in the sequence imposes a constraint on a scalar property of the sub-pool;
- B. randomly form a vector comprising a plurality of elements, wherein each of the elements in the vector belongs to at least one range from the sequence; and
- C. randomly select a plurality of questions from the pool to form the sub-pool such that each of the scalar properties of the sub-pool is equal to at least one of the elements of the vector.
- 20. (Currently Amended) A machine-readable <u>storage</u> medium that includes instructions for assembling a sub-pool from a pool of questions, wherein the sub-pool satisfies one or more constraints, in connection with creation of a standardized test comprising the sub-pool of questions, wherein such instructions, when executed by a computer, cause the computer to:
- A. form a candidate sub-pool by randomly selecting a plurality of questions from the pool;
  - B. determine if the candidate sub-pool satisfies the constraints;

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- C. if the constraints are not satisfied, remove the questions of the candidate sub-pool from the pool of questions and repeating steps A, B and C; and
  - D. if the constraints are satisfied, store the candidate sub-pool as the sub-pool.
- 21. (Currently Amended) The <u>computer machine</u>-readable <u>storage</u> medium of claim 20, wherein the computer is further caused to:
- E. when all of the questions from the pool of questions have been removed, restoring the pool with all of the removed questions.
- 22. (Currently Amended) A machine-readable <u>storage</u> medium that includes instructions for assembling a plurality of disjoint sub-pools from a pool of questions, wherein each sub-pool comprises a plurality of questions and satisfies one or more constraints, in connection with creation of a standardized test comprising a sub-pool of questions, wherein such instructions, when executed by a computer, cause the computer to:
  - A. assemble a first collection of intersecting sub-pools;
- B. extract from the first collection of sub-pools a second collection of sub-pools, wherein the second collection of sub-pools comprises the plurality of mutually disjoint sub-pools; and
  - C. store the second collection of sub-pools.
- 23. (Currently Amended) The <u>computer machine</u>-readable <u>storage</u> medium of claim 22 wherein assembling each of the sub-pools in the first collection comprises:
- (i) forming a candidate sub-pool by randomly selecting a plurality of questions from the pool;
  - (ii) testing the candidate sub-pool against the constraints; and
  - (iii) if the constraints are satisfied, storing the candidate sub-pool as the sub-pool[[;]].
- 24. (Currently Amended) The <u>computer machine</u>-readable <u>storage</u> medium of claim 22 or 23, wherein the computer is further caused to:

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D. compute, for each of the questions in the first collection of sub-pools, a frequency of usage in the first collection of sub-pools; and

E. analyze the questions in the pool of questions based on the computed frequency.